

### **REMARKS**

The title has been amended in view of the Examiner's objection in paragraph 2 of the Office Action. The new title is specific to the invention to which the claims are directed.

The drawings are objected to under 37 CFR §1.83(a) as failing to show every feature of the invention specified in the claims. A replacement drawing sheet is being submitted herewith for the Examiner's review. In this replacement drawing sheet, Figs. 6 and 7 have been amended to include the spring element embodied as a resilient sleeve as recited in claim 22. This resilient sleeve is referenced by numerals 301 and 302. The specification has been amended at page 6, line 30 to correspond with the amended drawings. Support for this resilient sleeve is provided on page 5, lines 22-23; page 6, lines 30-31; and claim 22.

Claim 19 has been amended to state that the signal line is an optical cable. Support for this amendment is provided in the original disclosure at page 2, lines 12-17. From the introduction of the application, it is clear that optical cables are meant wherever "signal line" is mentioned throughout the application. Electrical cables are not influenced by loads exerted externally on the signal line and, as such, a need for removing the load of a rigid component from an electrical cable, which is the subject of the present application, is not necessary.

Claim 19 has also been amended in view of the Examiner's rejection under 35 U.S.C. §112, second paragraph, as failing to provide antecedent basis for "the load" in line 6 of the claim.

No new matter has been added.

### **ARGUMENTS**

The drawings are objected to under 37 CFR §1.83(a) as failing to show every feature of the invention specified in the claims. In particular, the Examiner notes that the drawings fail to show the spring element embodied as a resilient sleeve in which at least one rigid component is placed as recited in claim 22. Figs. 6 and 7 are being submitted herewith for the Examiner's review. It is Applicant's position that the drawings now show each and every feature of the claimed invention as follows:

In view of the amended Figs. 6 and 7 and the comments set forth above, it is respectfully requested that the objection to the drawings under 37 CFR §1.83(a) be withdrawn as the drawings show every feature of the invention specified in the claims.

The title is objected to as being non-descriptive. A new title is being submitted herewith that is specific to the invention to which the claims are directed.

Claims 19-36 are rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Examiner states that "the load" in claim 19 lacks proper antecedent basis.

Claim 19 has been amended to change the phrase "the load" to --a load--, which has antecedent basis in the claim.

In view of the amendments to claim 19, it is respectfully requested that the rejection of claims 19-36 under 35 U.S.C. §112, second paragraph, be withdrawn.

Claims 19-24 and 27-36 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,629,787 to Wilson. The Examiner alleges that Wilson teaches each and every limitation of the claims. In particular, the Examiner states that Wilson teaches a gripping means for gripping a signal line comprising at least one rigid component 10 adapted to grip a sleeve 33 of a signal line 22 wherein the gripping means includes a spring element 12 made of a flexible material, which engages and exerts a biasing force on the rigid component and away from the signal line to remove load(s) of the rigid component. Applicant respectfully traverses this rejection for the reasons set forth below.

Claim 19 has been amended to recite the feature that the signal line is an optical component. Wilson, on the other hand, is directed to a connecting apparatus for joining circuitry. Note specifically Wilson at col. 1, lines 35-37 which states that "metal-to-metal contact is made between flexible circuit lands and the plated lands of a similar circuit or of a terminal board". This statement makes clear that the connecting apparatus is restricted to electrical circuitry, and is unsuitable for optical connections. The compression element referred to by the Examiner comprises a spring which is provided to press electrical circuitry paths together, see especially col. 1, lines 37-42 of the Wilson reference. Accordingly, the connector taught by Wilson is unsuitable for gripping on optical cables as stated in the claims, as it is only designed for connecting electrical gripping paths. Additionally, the spring in the Wilson device does not exert its force on a rigid element, but instead presses on

the 'signal line'. See col. 2, lines 46-50 of Wilson which state "Full engagement of the screw forces the spring-contact fingers 19 down upon the insulated side of the flexible circuit conductive lands 22, thus forcing the circuit paths of the flexible circuit 20 and the printed circuit board 21 into contact."

According to the present invention, the signal line does not bear a load in an unloaded situation. In contrast, the Wilson connector actually permanently presses on to the signal line instead of removing a load of the rigid component from the signal line. Thus, the biasing force from the spring 12 on the 'rigid component' 10 is not directed away from the signal line, but directed towards the signal line. Hence, the effect achieved by Wilson is completely the opposite of the invention. Furthermore, when a load is exerted on the Wilson connector, this load would not have any effect on the signal line, as col. 2, lines 50-52 of the reference states that the "contact force is independent of screw torque once clamping bar 10 is seated". Thus, the gripping means fix the position of the electrical contacts. Accordingly, the Wilson connector is completely unsuitable to achieve the technical effect achieved by the measures according to claim 19, as apparently the Wilson connector does not allow external loads on the signal line.

With respect to dependent claims 22 and 29, it is not seen where Wilson teaches that the spring element is embodied as a resilient sleeve in which at least one rigid component is placed or how the rigid component forms part of the sleeve.

For the reasons set forth above, it is inconceivable how the Wilson connector could teach or render obvious gripping means according to the invention, whether taken alone or combined with additional art, as the Wilson connector appears to be technically incompatible with optical cable technology. Accordingly, it is respectfully requested that the rejection of claims 19-24 and 27-36 under 35 U.S.C. §102(b) be withdrawn as Wilson fails to teach each and every limitation of the claims.

Claims 25-26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Wilson in view of U.S. Patent No. 5,703,754 to Hinze.

The Examiner alleges that Wilson discloses all of the features of the claims except the claimed feature of a hardness of the rigid component being between 10-100 Shores and the spring element has a hardness less than 60 Shore. The Examiner relies upon Hinze as teaching the use of materials having a hardness within this range. The Examiner asserts that it would have been obvious to one having ordinary skill in the art to make the rigid

component in Wilson to have a hardness of 10-100 Shores in view of Hinze depending upon the intended use of the product. Applicant respectfully traverses this rejection for the reasons set forth below.

As discussed in detail above, Wilson fails to teach a connector apparatus suitable for an optical cable as set forth in the claims. Wilson also fails to teach that the connector apparatus includes a spring element engaging on the rigid component to *remove* the load of the rigid component from the signal line, but rather teaches that the spring element applies pressure *onto* the signal line. Hinze fails to overcome these deficiencies in the Wilson system. Hinze shows adhesive sealants as materials used for construction of a housing of circuit boards. In the event components are carried on the outboard surface of the circuit board and are thus covered by the compound, a Shore hardness of 40-50 after curing of the sealant are preferred (col. 3, lines 34-35). The function of this hardness is apparently to make the board tamper deterrent and tamper evident (col. 3, line 42). This implies that the cured sealant has a lack of resilience, as resilient materials would come back to their original form after a tampering attempt.

Moreover, as stated above, the combination of Wilson with Hinze would not lead to the invention as recited in base claim 19 as the rigid element and spring element are still lacking in Wilson.

For the reasons set forth above, it is respectfully requested that the rejection of claims 25-26 under 35 U.S.C. §103(a) be withdrawn as the combination of Wilson with Hinze fails to render these claims obvious.

**CONCLUSION**

Based on the foregoing amendments and remarks, reconsideration of the rejection and allowance of pending claims 19-36 is respectfully requested.

Respectfully submitted,

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"Gripping Means for Gripping a Signal Line"

Inventor: Mathijs T. W. VAN DE VEN

Application No. 10/519,601

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ANNOTATED SHEET SHOWING CHANGE

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